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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/692,166 | 10/23/2003 | Robyn Lee Focazio | AUS920030688US1 | 1938 |

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| EXAMINER |
|---|
| LIN, SHEW FEN |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2166 | |

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/692,166 | FOCAZIO ET AL. | |
| | Examiner | Art Unit | |
| | Shew-Fen Lin | 2166 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *18 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

a. This action is responsive to amendment filed on July 18, 2006.

b. Claims 1-39 are pending.

### *Claim Rejections – 35 USC § 101*

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 1, even the preamble recites "a computer implemented process", computer process may be explicitly claimed as, for example, as a series of code or instructions for performing functions or may be implicitly claimed as, for example, a system or a tool or a logic or a module. Where there is no evidence in the specification that a term or phrase, which may be interpreted as software, hardware or combinations thereof necessarily includes hardware, it should be interpreted in its broadest reasonable sense as software. In addition, all elements of claims, such as "clause", "query" are not physical structural element, but instead application program, or software. These claims are therefore non-statutory subject matter because they are software per se, and not tangibly embodied.

Regarding claims 2-9 depend from rejected claim 1, comprise the same deficiencies as those claims directly or indirectly by dependence, and are therefore rejected on the same basis.

***Response to Amendment and Remarks***

Applicant's amendments and remarks have been fully and carefully considered but they are not deemed to be persuasive.

Applicant contends that ICST does not disclose prevention of an unnecessary table join in the query. It is noted, however, the amended limitation of "automatically placing a clause in the query so that the query can only access necessary tables in the database" does not prevent any unnecessary table join in the query. Any table included in the SQL statement is the necessary tables for the query; therefore, any clause referring to a table will access necessary tables in the database. Thus, it is not able to overcome the reference as amended.

Applicant also contends "ICST and Evans together are incapable of creating a query for a database by automatically placing a clause in the query so that the query can only access necessary tables in the database". As noted above that any tables defined in the SQL statement qualified and can be considered "necessary tables" to be accessed. Furthermore, ICST uses a drop-down menu to build clause for the SQL command (Select, From, Where,..) (page 21,22, ICST). Since drop-down menu is limited to the information (tables, fields,.) defined in the database, therefore, it teaches the limitation of " place a clause in the query so that the query can only access necessary tables in the database".

Therefore, the Examiner's stance regarding the status of claims 1-39 remains the same as stated in the previous Office Action.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Icetips Cowboy SQL Templates (Icetips Cowboy SQL Templates User's Guide, Version 6.0, February 20, 2003, hereinafter referred as ICST) in view of Evans et al. (US Publish 2004/0220917, hereinafter referred as Evans).

**As to claim 1**, ICST discloses a computer implemented process for creating a query for a database (construct SQL statement to browse database, page 8, paragraph 3), wherein the computer implemented process automatically prevents places a clause into the query so that the

query can only access necessary tables (Where clause option allows you to specify the necessary table join, page 22).

ICST discloses the elements of claims 1 as noted above but does not explicitly disclose preventing inclusion of an unnecessary table join in the query.

Evans discloses preventing inclusion of an unnecessary table join in the query (paragraph [0001], paragraphs [0015]-[0018]).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify ICST's disclosure to exclude a list of tables from table join as taught by Evans for the purpose of preventing execution of unnecessary joins (paragraph [0001], lines 1-4, Evans). The skilled artisan would have been motivated to improve the invention of ICST per the above such that costly table joins can be minimized (paragraph [0013], Evans).

**As to claims 2 and 17**, ICST discloses determining whether a SQL template has a FROM clause placeholder ("after FROM before WHERE", page 24, paragraph 4) and determining whether a FROM clause table has been previously specified in the SQL template ("after FROM before WHERE", page 24, paragraph 4); responsive to the determination that the SQL template has the FROM clause placeholder and that the FROM clause table has not been previously specified in the SQL template, generating a FROM clause for the table ("after FROM before WHERE", page 24, paragraph 4); determining whether the SQL template has a JOIN clause placeholder ("after WHERE before ORDER BY", page 25, paragraph 1) and determining whether the FROM clause has been added (page 24, paragraph 4); and responsive to the

determination that the SQL template has the JOIN clause placeholder and that the FROM clause has been added, generating a JOIN clause (page 24, paragraph 4).

**As to claims 3 and 18**, ICST discloses responsive to the determination that the SQL template has the FROM clause placeholder and that the FROM clause table has not been previously specified in the SQL template, adding the FROM clause to a FROM clause string (in TABLENAMEQ, page 51); and responsive to the determination that the SQL template has the JOIN clause placeholder and that the FROM clause has not been added, adding the JOIN clause to a JOIN clause string (store strings in WHERECLAUSE, page 52).

**As to claims 4 and 19**, ICST discloses generating a (join) WHERE clause ("WHERE clause", page 22, paragraph 2); adding the (join) WHERE clause to a (join) WHERE clause string (update, page 22, paragraphs 2-4); adding an alias to an added aliases list (add alias, page 57, paragraph 1); and adding an optional where clause alias to an optional where clause aliases list (page 22, paragraph 2).

**As to claims 5 and 20**, ICST discloses determining if a plurality of parameters are on the added aliases list (list of fields supplied by the template, page 53, paragraph 4); and responsive to the determination that the parameters are not on the added aliases list, performing the steps in claim 2 (generate query string for the template as described in claim 2, page 21, paragraph 2, page 24, paragraph 4).

ICST discloses the elements of claims 5 as noted above but does not explicitly disclose determining whether the optional where clause alias is on the added aliases.

Evans discloses preparing a list of tables that are within the scope of the SQL but are not referred to by the SQL statement and exclude the tables for query (paragraphs [0015]-[0018]).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify ICST's disclosure to exclude a list of tables from table join as taught by Evans for the purpose of preventing execution of unnecessary joins (paragraph [0001], lines 1-4, Evans). The skilled artisan would have been motivated to improve the invention of ICST per the above such that costly table joins can be minimized (paragraph [0013], Evans).

**As to claims 6 and 21**, ICST discloses generating a SELECT clause (page 24, paragraph 3); generating a (filter) WHERE clause (page 24, paragraph 4); and generating an ORDER BY clause (page 25, paragraph 2).

**As to claims 7 and 22**, ICST discloses responsive to the determination that all of the parameters have been analyzed, determining whether the optional where clause alias is on the added aliases list (check the expression in WHERE clause, page 22, paragraph 2); responsive to the determination that the optional where clause alias is on the added aliases, generating the (join) WHERE clause for the optional where clause alias (insert WHERE clause, page 22, paragraph 3); and responsive to the determination that the optional where clause alias is on the added aliases list, adding the (join) WHERE clause to the (join) WHERE clause string (AND/OR WHERE clause, page 22, paragraph 4).

**As to claims 8 and 23**, ICST discloses replacing the FROM clause placeholder in the SQL template with the FROM clause string (paragraph 24, lines 5); replacing the JOIN clause placeholder in the SQL template with the JOIN clause string (page 21,paragraph 2); and adding the (join) WHERE clause string to the (filter) WHERE clauses in the SQL template (insert to WHERE clause, page 21, paragraphs 2-3).

**As to claims 9 and 24**, ICST discloses accepting a user submission of a field and a filter (filter, page 18, paragraphs 2-4); sending the query to the database (construct SQL statement to retrieve data, page 8, paragraph 3); and obtaining an output from the database (retrieve data, page 8, paragraph 3).

**As to claims 10 and 25**, ICST discloses a computer implemented process of creating a query for a database (construct SQL statement to browse database, page 8, paragraph 3), wherein the computer implemented process automatically places a clause into the query so that the query can only access necessary table (Where clause option allows you to specify the necessary table join, page 22), the computer implemented process comprising: determining if a plurality of parameters are on an added aliases list; responsive to the determination that the parameters are not on the added aliases list (list of fields supplied by the template, page 53, paragraph 4), running a clause generation program (generate query string for the template as described, page 21, paragraph 2, page 24, paragraph 4); determining if all of the parameters have been analyzed; responsive to the determination that all of the parameters have been analyzed, determining

whether an optional where clause alias is on the added aliases list (check the expression in WHERE clause, page 22, paragraph 2); responsive to the determination that the optional where clause alias is on the added aliases list, generating a (join) WHERE clause for the optional where clause alias (insert WHERE clause, page 22, paragraph 3); and responsive to the determination that the optional where clause alias is on the added aliases list, adding the (join) WHERE clause to a (join) WHERE clause string (AND/OR WHERE clause, page 22, paragraph 4).

ICST discloses the elements of claims 10 as noted above but does not explicitly disclose preventing inclusion of an unnecessary table join in the query and determining whether the optional where clause alias is on the added aliases.

Evans discloses preventing inclusion of an unnecessary table join in the query (paragraph [0001], paragraphs [0015]-[0018]) and preparing a list of tables that are within the scope of the SQL but are not referred to by the SQL statement and exclude the tables for query (paragraphs [0015]-[0018]).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify ICST's disclosure to exclude a list of tables from table join as taught by Evans for the purpose of preventing execution of unnecessary joins (paragraph [0001], lines 1-4, Evans). The skilled artisan would have been motivated to improve the invention of ICST per the above such that costly table joins can be minimized (paragraph [0013], Evans).

**As to claims 11 and 26**, ICST discloses wherein the clause generation program comprises: determining whether a SQL template has a FROM clause placeholder ("after FROM before WHERE", page 24, paragraph 4) and determining whether a FROM clause table has been

previously specified in the SQL template ("after FROM before WHERE", page 24, paragraph 4); responsive to the determination that the SQL template has the FROM clause placeholder and that the FROM clause table has not been previously specified in the SQL template, generating a FROM clause for the table("after FROM before WHERE", page 24, paragraph 4); determining whether the SQL template has a JOIN clause placeholder ("after WHERE before ORDER BY", page 25, paragraph 1) and determining whether the FROM clause has been added (page 24, paragraph 4); and responsive to the determination that the SQL template has the JOIN clause placeholder and that the FROM clause has not been added, generating a JOIN clause page 24, paragraph 4).

**As to claims 12 and 27**, ICST discloses wherein the clause generation program further comprises: responsive to the determination that the SQL template has the FROM clause placeholder and that the FROM clause table has not been previously specified in the SQL template, adding the FROM clause to a FROM clause string (in TABLENAMEQ, page 51); and responsive to the determination that the SQL template has the JOIN clause placeholder and that the FROM clause has not been added, adding the JOIN clause to a JOIN clause string (store strings in WHERECLAUSE, page 52).

**As to claims 13 and 28**, ICST discloses wherein the clause generation program further comprises: generating the (join) WHERE clause ("WHERE clause", page 22, paragraph 2); adding the (join) WHERE clause to the (join) WHERE clause string (update, page 22,

paragraphs 2-4); adding an alias to the added aliases list; and adding the optional where clause alias to an optional where clause aliases list (page 22, paragraph 2).

**As to claims 14 and 29**, ICST discloses generating a SELECT clause (page 24, paragraph 3); generating a (filter) WHERE clause (page 24, paragraph 4); and generating an ORDER BY clause (page 25, paragraph 2).

**As to claims 15 and 30**, ICST discloses replacing the FROM clause placeholder in the SQL template with the FROM clause string (paragraph 24, lines 5); replacing the JOIN clause placeholder in the SQL template with the JOIN clause string (page 21,paragraph 2); and adding the (join) WHERE clause string to the (filter) WHERE clauses in the SQL template (insert to WHERE clause, page 21, paragraphs 2-3).

**As to claims 16 and 31**, ICST discloses accepting a user submission of a field and a filter (filter, page 18, paragraphs 2-4); sending the query to the database (construct SQL statement to retrieve data, page 8, paragraph 3); and obtaining an output from the database (retrieve data, page 8, paragraph 3).

**As to claim 32**, ICST discloses a program product operable on a computer, the program product comprising: a computer-usable medium; wherein the computer usable medium contains instructions to cause a computer to automatically place a clause into a query for a database so that the query can only access necessary table in the database (page 22), the instructions

comprising: a query program, wherein the query program queries a database using a query (construct SQL statement to browse database, page 8, paragraph 3); a query generation program, wherein the query generation program generates a query having only the necessary joins for the query (generate query based on the parameters defined in the corresponding placeholder, pages 22-23); and a clause generation program, wherein the clause generation program determines which clauses are necessary in the query (generate WHERE clause, page 22, paragraphs 2-3, page 54).

ICST discloses the elements of claims 32 as noted above but does not explicitly disclose generating a query having only the necessary joins for the query.

Evans discloses generating a query having only the necessary joins for the query (paragraph [0001], paragraphs [0015]-[0018]).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify ICST's disclosure to exclude a list of tables from table join as taught by Evans for the purpose of preventing execution of unnecessary joins (paragraph [0001], lines 1-4, Evans). The skilled artisan would have been motivated to improve the invention of ICST per the above such that costly table joins can be minimized (paragraph [0013], Evans).

**As to claim 33**, claim 33 is essentially the same as claim 10 except that it sets forth the claimed invention as a computer program product rather than a method. Relevant teachings in the ICST and Evans have been identified for each of the steps of claim 33 in the rejection of claim 10. Claim 33 is therefore rejected under the same rationale given to claim 10 above.

**As to claim 34**, claim 34 is essentially the same as claim 14 except that it sets forth the claimed invention as a computer program product rather than a method. Relevant teachings in the ICST and Evans have been identified for each of the steps of claim 34 in the rejection of claim 14. Claim 34 is therefore rejected under the same rationale given to claim 14 above.

**As to claim 35**, claim 35 is essentially the same as claim 15 except that it sets forth the claimed invention as a computer program product rather than a method. Relevant teachings in the ICST and Evans have been identified for each of the steps of claim 35 in the rejection of claim 15. Claim 35 is therefore rejected under the same rationale given to claim 15 above.

**As to claim 36**, claim 36 is essentially the same as claim 11 except that it sets forth the claimed invention as a computer program product rather than a method. Relevant teachings in the ICST and Evans have been identified for each of the steps of claim 36 in the rejection of claim 11. Claim 36 is therefore rejected under the same rationale given to claim 11 above.

**As to claim 37**, claim 37 is essentially the same as claim 12 except that it sets forth the claimed invention as a computer program product rather than a method. Relevant teachings in the ICST and Evans have been identified for each of the steps of claim 37 in the rejection of claim 12. Claim 37 is therefore rejected under the same rationale given to claim 12 above.

**As to claim 38**, claim 38 is essentially the same as claim 13 except that it sets forth the claimed invention as a computer program product rather than a method. Relevant teachings in

the ICST and Evans have been identified for each of the steps of claim 38 in the rejection of claim 13. Claim 38 is therefore rejected under the same rationale given to claim 13 above.

**As to claim 39**, claim 39 is essentially the same as claim 16 except that it sets forth the claimed invention as a computer program product rather than a method. Relevant teachings in the ICST and Evans have been identified for each of the steps of claim 39 in the rejection of claim 16. Claim 39 is therefore rejected under the same rationale given to claim 16 above.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shew-Fen Lin whose telephone number is 571-272-2672. The examiner can normally be reached on 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shew-Fen Lin
Patent Examiner
SFL

Art Unit 2166
September 27, 2006

MOHAMMAD ALI
PRIMARY EXAMINER